ACC.13
62nd Annual Scientific Session & Expo
TCT@ACC-i2

E1378
JACC March 12, 2013
Volume 61, Issue 10

# Prevention

## TIME COURSE OF BLOOD PRESSURE REDUCTION AFTER RENAL DENERVATION

Poster Contributions
Poster Sessions, Expo North
Saturday, March 09, 2013, 3:45 p.m.-4:30 p.m.

---

Session Title: Renal Denervation: Coming of Age
Abstract Category: 25. Prevention: Hypertension
Presentation Number: 1148-24

---

Authors: *Willemien Verloop, Eva E. Vink, Peter J. Blankestijn, Evert-Jan Vonken, Pieter A. Doevendans, Wilko Spiering, Michiel Voskuil, University Medical Center, Utrecht, Utrecht, The Netherlands*

**Background:** The first clinical studies about renal denervation (pRDN) reported a clear reduction in office-based blood pressure (BP) after 6-36 months. Some patients responded later than others, leading to a hypothesis of delayed response. However, it remains unknown, what the exact timing of the effect of pRDN is. To monitor the time course of BP reduction after pRDN more closely, self BP measurements (SBPM) are of additional value. They offer a more frequent registration of BP and are more reliable than office-based BP. In the current abstract, an interim analysis of an ongoing study about determination of timing of BP response after pRDN is presented.

**Methods:** Patients with resistant hypertension (office based systolic BP (SBP)> 160 mmHg under ≥3 antihypertensives) who underwent pRDN in our center received an internet-based SBPM device (Microlife WatchBP home) to monitor BP at home every month during 1 week, starting the first month after treatment. In this week, patients measured their BP twice a day. Additionally, office BP was measured at 1 and 6 months after treatment.

**Results:** At moment of submission, 6 months follow-up in 22 patients was available. One month after treatment, office-based SBP showed a mean reduction of 31 ± 22 mmHg (P<0,0001). Office-based diastolic BP (DBP) showed a mean reduction of 13 ± 16 mmHg (P=0,007). This reduction in office BP persisted after 6 months (mean reduction SBP 32 ± 26 mmHg; DBP 14 ± 13 mmHg; both P=NS) compared to 1 month office-based follow-up. SBPM confirmed a lack of continuing reduction of BP between the 1st and 6th month after treatment (from 164/101± 24/21 mmHg to 162/99 ± 27/13 mmHg; P=NS).

**Conclusions:** The effect of pRDN as assessed with office and SBPM is consistently present after 1 month. Since no further reduction is seen after the first months, it can be expected that the foremost reduction in BP is already obtained in the first month after treatment.